

#### ABSTRACT OF THE DISCLOSURE

A measurement endoscope system comprises an electronic endoscope, an image processing unit, a control device, a display device, a first reference line designation block, a first reference plane designation block, a contour border designation block, and an arithmetic and logic block. The electronic endoscope has an imaging unit. The image processing unit receives an imaging signal sent from the imaging unit and produces a video signal. The control device has at least a control unit that includes a measurement processing block which performs measurement processing on the basis of an image signal produced by the image processing unit. The display device receives the video signal transmitted in response to a direction given by the control unit included in the control device, and displays an image represented by the video signal. The first reference line designation block includes a missing-edge portion measurement block that measures the area of a missing portion of an edge of an object matter and that is included in a measurement processing block incorporated in the control unit. The first reference line designation block designates a first reference line corresponding to a side surface of the object matter which the missing edge portion used to contain. The first reference plane

designation block designates a first reference plane that corresponds to the top of the object matter which the missing edge portion used to contain, and that intersects the first reference line, which is designated by the first reference line designation block, at one point. The contour border designation block determines a missing-contour border by designating any points on the border of the missing edge portion. The arithmetic and logic block calculates the area of a field that is formed by moving the missing-contour border, which is designated by the contour border designation block, up to the first reference plane in a direction parallel to the direction of the first reference line, and that is defined with the missing-contour border, first reference line, and first reference plane.